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The Making of the Burlington

Remarks of

W. W. BALDWIN
Vice-President

Before the Burlington Engineers
of Lines East Section
American Association of Engineers
at
Chicago, July 2, 1920

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Remarks of W. W. Baldwin, Vice President, to employes of the Engineering department, at Chicago, July 2, 1920.

Major Hill called the meeting to order, and introducing Mr. Baldwin, said: "I think we may consider ourselves fortunate in being able to secure one of our high officials to address us tonight. I take great pleasure in introducing Mr. Baldwin, Vice President."

Mr. Baldwin's Address

Mr. Chairman and Gentlemen:

I thank you for the courtesy of this invitation to address you. It is an honor to be appreciated. When your committee invited me, day before yesterday, to speak to you at this time, I asked what they wanted me to talk about, and in reply they suggested that I say something about "The Making of the Burlington."

There is an old saying, "Every Man to His Trade." Your trade is the building and rebuilding and maintenance of railroads. A big railroad is never finished. Yours is a good trade; the profession of engineer is a good profession; it is full of work, full of responsibilities, and full of opportunities. But in making and in maintaining a railroad, other talents are necessary besides those of an engineer. Successful railroad making, or the making of a successful railroad, demands, among other things, the talents of the banker or the promoter, the financial push to get the money, as it calls for the lawyer to find the legal authority, and to safeguard the rights of the company, and all those who invest in its securities, as far as possible, and the engineer to create the plant and make the special highway safe for public use.

I think that the Burlington, at its very beginning, was fortunate in its banker, fortunate in its lawyer, and fortunate in its engineer. Its banker was John M. Forbes, of Boston, its lawyer was Jas. F. Joy, of Detroit, and its engineer was John W. Brooks.

Mr. Forbes was in many ways one of the most remarkable men this country has produced, and one of

the most sagacious and successful. He was a friend of President Lincoln, who sent him to England upon a very confidential mission during one of the most critical periods of our civil war. He was peculiarly and closely identified with the Burlington from its humble origin in 1849 until it had reached success and power in 1898, in which year he died, at the age of eighty-five. The present company was created in 1856, and Mr. Forbes was a director of the company for forty-one years, that is, from 1857 until his death, and he was President of the company from 1878 to 1881, when he was succeeded by Mr. Perkins. Early in his youth he became connected with the business carried on by the clipper ships sailing out of Boston in the China trade, and with the far east, which was, at that time, one of the most profitable lines of business in this country. It is interesting to recall that before he was eighteen years old he found himself in China, in a position involving great trust, with splendid opportunities for making money, among them being the friendship of the Chinese Mandarin Houqua, one of the richest merchants in China, who took him into partnership in various profitable cargoes. These were so successful that Forbes, before he was twenty-four years old, had made his fortune, returned from China, retired from active mercantile business, and became a private banker in Boston. He founded the banking house of John M. Forbes & Company, which continued as long as he lived. Brooks was a first-class civil engineer, who had been superintendent of the Auburn and Rochester railroad. He was a man of high character and great executive ability. He was a director from 1855 to 1876, and president of the Iowa and Nebraska roads for many years.

The Origin of the C. B. & Q.

It is a correct historical statement to make that the idea and development of the Burlington road in its beginnings largely grew out of and was connected with the purchase and extension of the Michigan Central road to Chicago by Mr. Forbes and his associates, and that they were led to undertake that enterprise through Mr. Brooks, the engineer.

An engineer should have vision, imagination, should see ahead. Brooks was an engineer with a vision.

Prior to 1845, the State of Michigan had become the unfortunate owner of two railroads—the Michigan Southern and the Michigan Central. They were unprofitable and badly run down, and they were for sale at a bargain. Brooks carefully inspected the Michigan Central, of which Joy was the attorney, and had great faith that if the right banker could be found, that is, the money brains, to handle it, and the road could be put in order and extended into Chicago, it would become a paying property. A fortunate circumstance led him, in 1845, into the Forbes counting house in Boston. He persuaded Mr. Forbes to come out to Detroit and see Joy, with the result that in 1846, Forbes formed a financial syndicate and purchased the Michigan Central road from Detroit to Kalamazoo for $2,000,000, which had cost the state over $5,000,000. What they got, and incidentally, as an illustration of what government ownership, or state ownership can do to a railroad if you give it time, is partially disclosed by this description of that property which you, as engineers, will relish and fully appreciate:

The track of the Michigan Central at that time, like that of all early railroads, consisted of beams of wood

six inches square, to which were fastened strips of iron half an inch thick by two and a quarter inches wide. The beams were fastened to cross-ties laid three feet apart, which in turn were laid upon under-sills, the whole being supported upon short blocks of different lengths, varying according to the distance between the bottom of the under-sills and a firm foundation. On the first thirty miles out of Detroit the wooden part of the track, which had been in use for eight years, had never been renewed, and was naturally much decayed. The iron, worn out and broken, curved up at the ends; and when one of these up-springing pieces thrust itself through the floor of the car between the feet of a passenger, it was expressively known as a "snake-head." It was described by the phrase "a barrel-hoop tacked to a lath." The charter of the new company required the road to be laid with a very heavy T rail of iron, weighing sixty pounds to the yard. I have seen an apparently authentic statement that the wife of an official of the Michigan Central was killed by one of these snake-heads while traveling over the road.

By the way, Mr. Forbes brought Daniel Webster out from Boston to write the new charter for the reorganized company. The flattering promise they made to the public was to extend the road into Chicago and reduce the passenger time between New York and Chicago to two and a half days!

The new owners rebuilt the property, and by 1852, had pushed it into Chicago, in the face of obstacles that at times seemed almost insurmountable, and from the start began looking eagerly to the west for the development of connections and feeders, such as the C. B. & Q. became. It was a neck and neck race into Chicago with

the Michigan Southern, which was already promoting and extending the Rock Island towards Iowa for its feeder and connection.

In 1846, in the entire United States west of Buffalo and north of the Ohio river there were only 500 miles of railroad, all of it shod with strap iron, and their little teakettle engines burning cord wood for fuel.

Conditions in the West.

In those days conditions throughout this western country were bad, and largely from lack of transportation and markets. Illinois had been admitted into the Union in 1818, but for thirty years had made very little progress. Chicago had only 25,000 population, while St. Louis had 78,000, and Cincinnati had 116,000, because the rivers provided some transportation. The need and the demand for railroads was very great. It brought about the public policy of granting lands to induce private individuals to invest their money in railroads, instead of further undertaking state ownership, which had proved so disastrous. No man could be elected to Congress from the west unless he pledged himself in advance to vote for land grants to railroads. The first important grant of land made by the government to induce the construction of railroads by private capital was made in 1850 to the Illinois Central. Stephen A. Douglas, then a Senator from Illinois, was the author of the bill and its earnest champion. It was one of his chief claims for popularity with the people of Illinois. Henry Clay was at that time in the Senate from Kentucky, and in the course of the debate over the Illinois Central land grant, Mr. Clay said:

"With respect to the State of Illinois—and I believe the same is true to a considerable extent with ref-

erence to Mississippi and Alabama, but I happen to know something personally of the interior of the State of Illinois—that portion of the state through which this road will run is a succession of prairies, the principal of which is denominated the 'Grand Prairie.' I do not recollect its exact length; it is, I believe, about 300 miles in length and but 100 in breadth. Now, this road will pass directly through that Grand Prairie lengthwise, and there is nobody who knows anything of that Grand Prairie who does not know that the land is utterly worthless for any present purpose—not because it is not fertile but for want of wood and water and from the fact that it is inaccessible, wanting all facilities for reaching a market or for transporting timber, so that nobody will go there and settle while it is so destitute of all the advantages of society and the conveniences which arise from a social state. And now, by constructing this road through the prairie, through the center of the state of Illinois, you bring millions of acres of land immediately into the market, which will otherwise remain for years and years entirely unsalable."

The land had no value because there were no markets. What was the use of raising crops when they could not be sold? The country was still suffering from the consequences of the panic of 1837. Everybody was poor, and nearly everyone was in debt. Money was scarce and a rate of 3 per cent a month was a common rate of interest. Corn sold as low as 8 cents a bushel; wheat from 20 to 30 cents a bushel; dressed hogs for $1.50 per hundred pounds, and the best land around Galesburg could be bought at 80 cents an acre. Whisky sold for 12 cents a gallon, and for one bushel of rye you could buy 2½ gallons of whisky. Now it would take 100 bushels of rye to buy 2½ gallons of really good whisky, and rye sells for about five times the price it sold for at that time.

We complain today about high prices, a condition

that is impressed upon us hourly, as we experience the high cost of living. But I am not so sure, Gentlemen, that some of us would not complain as much, or even more, if we were suffering from low cost of living. That is what prevailed here before this western country had railroads which brought markets, and people, and better prices, and prosperity.

Even in 1896, after railroads were here, I heard Mr. Bryan, with enthusiastic applause from Iowa farmers, ridicule the idea of a "Good Dollar." In denouncing low prices, he said "Yes, my friends, we want a good dollar, but we do not want a dollar so good that it takes six bushels of oats to get one."

The pendulum of prices swings up and then it swings down. He is a wise man who can tell whether all the people really suffer more from high prices than they do from low prices.

But the dawn of a better day was appearing, and in 1850 nothing would do more to lighten the general gloom than the building of railroads. Iowa had been admitted into the Union in 1846, the first free state of the Louisiana Purchase, a tremendous enlargement of the area of good land. The revolution of 1848 in Germany sent to America thousands of the very best class of liberty loving Germans of the type of Carl Schurz and Emil Pretorius, who settled in Wisconsin, Illinois, Missouri, and Iowa. The invention and successful use of the McCormick reaper and other agricultural machinery greatly increased the productiveness of the land.

By 1849, the Mexican war was over and as a result of that inglorious triumph we took Texas and California from Mexico.

But the great historic event which above all other causes attracted immigration to the west and stimu-

lated the demand of the people for the immediate building of railroads, was the discovery of gold in California in 1848. The Mississippi Valley was ready for the locomotive.

Organizations Through Which the Road Was Made

At that time railroads were built under special state charters, and charters could be had for the asking, so urgent was the public demand for railroads. Dozens of them were granted at every session of the Illinois legislature.

Aurora got a charter under the name "Aurora Branch," to build twelve miles north to Turner Junction.

Peoria got one called "Peoria & Oquawka," to build from Peoria to Oquawka.

Quincy got a charter named "Northern Cross," to build northeast towards Galesburg.

All three of these special charters were granted on the same day, that is, on February 12, 1849. These paper railroads were financed locally to the limited extent that the people of these communities were then able to raise money. The Aurora Branch people got together enough in 1850 to build their twelve mile road, which was the small seed out of which the C. B. & Q. finally grew. At Turner Junction it connected with the Galena road, now the Northwestern, and for five or six years handled all its business into Chicago over the thirty miles of that road, using the old Kinzie street terminals of that company, until the building of the St. Charles Air Line, in 1855.

A local newspaper published in Aurora shortly after the road was finished said, concerning its construction:

"Second-hand strap rails were purchased and used, the directors becoming personally responsible for their

payment. A second hand engine and passenger car was purchased, and with some freight cars belonging to the Galena road, the enterprise was set in motion."

Just, for a moment, contrast that with the present C. B. & Q. In 1920 the company owns 1,900 locomotives, 1,300 passenger train cars, and 75,000 freight train cars. It carried last year twenty-three million passengers, and its earnings amounted to one hundred and fifty-four million dollars.

The Peoria people raised enough to build fourteen miles of their road in 1851, out as far as Edwards Siding. Its western terminus was Oquawka, a few miles up the river from Burlington, and its route was located through Farmington, which is about twelve miles south from Galesburg. This greatly disturbed the people of Galesburg, who wanted a railroad, and accordingly got a charter of their own in 1851, which they called "Central Military Tract," which authorized them to build from Galesburg northeasterly to connect with any railroad leading toward Chicago.

The leading spirit in the Galesburg company was Chauncey S. Colton, an enterprising merchant. Mr. Wadsworth, a merchant in a small town near Aurora, was a director in the Aurora Branch company. They were in Boston to buy goods in the spring of 1852, and met in the old American House there where, at the same time, James W. Grimes was a guest. Grimes was a promising young lawyer at Burlington, and a director of the Peoria & Oquawka. He afterwards became Governor of Iowa, and United States Senator, and has always been regarded as one of Iowa's greatest citizens. Here were the representatives of these three paper railroads, none of which could be built for lack of funds. Mr. Colton, while living, made this statement about their Boston interview:

"Mr. Grimes asked what I would propose. I said we ought to use our influence together and make a railroad from Burlington to Chicago, via Galesburg. I thought we could interest Forbes, Brooks and Joy and their associates in Boston, who had purchased the Michigan Central and were rich men, and that this road to Burlington would be a feeder to their line, which was then (May, 1852) just completed to Chicago. Both Grimes and Wadsworth agreed to the plan. Mr. Grimes went the next day to New York and saw Green and Griswold, directors in the Michigan Central, who gave him letters to Brooks, their man in Detroit. They agreed to provide the financial backing for our enterprises if we would get the legislature at Springfield to amend our charter giving us a clear right to establish rates for passengers and freight. I went to Springfield and procured this amendment."

Mr. Joy went to Springfield to see about the charter amendment, and afterwards said:

"Mr. Colton was anxious to secure a Chicago connection for the Military Tract road. I told him I thought the men interested in the Michigan Central would subscribe to their stock and bonds. I agreed that if he secured his amendment I would go immediately to Boston and New York and secure the necessary financial backing, which was done."

That changed the whole situation. From the day when these people got in touch with the Forbes Michigan Central financial interests, it became possible for Galesburg and Burlington to get a railroad.

In June, 1852, the charter of the Aurora Branch was amended to provide for a line southwest to Mendota, and the name of the company was changed to "Chicago and Aurora," and before the close of 1853, the road was built to Mendota.

The Central Military Tract, with the Forbes backing, began work in 1852, and completed the link be-

tween Galesburg and Mendota in 1854, and at the same time, the Peoria and Oquawka, with the same financial assistance, pushed the construction of its line from Galesburg west, and completed it to the Mississippi river, opposite Burlington, in March, 1855, and at the same time the name "Chicago and Aurora," was changed to "Chicago, Burlington & Quincy," the word "Burlington" then appearing, by which it has ever since been popularly known. In 1856 the Central Military Tract was consolidated with the Aurora Company under the name "Chicago, Burlington & Quincy."

By this time the Chicago terminals of the Galena road had become inadequate, and in 1855 the St. Charles Air Line was built jointly with three other roads, which enabled the C. B. & Q. to get across the city to a direct connection with the Michigan Central, and to better terminals at the foot of Randolph street. The Northern Cross, although chartered in 1849, was helpless until the Forbes people took hold of it and completed it from Quincy to Galesburg in 1856. The Peoria and Oquawka finished its road from Galesburg east to Peoria in 1857.

Meantime the Hannibal & St. Joe had procured a charter from the State of Missouri in 1847, and the Burlington & Missouri River company had been organized by local people at Burlington in 1852. Neither of them could go very far because of lack of money. The Hannibal began a little work in 1851, but it took four years to build twenty miles of grade. It was not until the Forbes-Joy-Brooks interest fur nished the money that they were able to really build any road, but with that assistance the line was finished through to St. Joseph in 1859.

In the same way the Iowa road, the Burlington &

Missouri River, could do little, and for the same reason, although, with the help of Mr. Grimes, they had secured a government land grant in western Iowa of 360,000 acres in 1856. They began a little work in 1854, but it took three years to build thirty-five miles out from Burlington to the Skunk river, and it was only when the Forbes interest came to their relief that they could extend the road to Ottumwa in 1859.

This then, was the situation at the outbreak of the Civil War; the road was in operation from Chicago to East Burlington, and from Galesburg south to Quincy, and east to Peoria, with close connections at Chicago with the Michigan Central and at Burlington with the Iowa road, and at Quincy with the Hannibal line, across the State of Missouri.

The Civil War brought the company's activities to a full stop, except that in 1864 the line was built from Aurora direct into Chicago, via Naperville, and the entrance over the Northwestern was terminated, but the road was an established success, with good credit, good management, and a promising future.

Developments Following the Civil War

By 1866, Charles E. Perkins had become active in the management, and was to be more and more an important factor in the development of the property. He had entered the company's service in 1859, at the age of nineteen, as a clerk in the freight house at Burlington at $30 a month, and had risen steadily to be Paymaster, Assistant Treasurer, and Superintendent. Being asked why the Boston interests, which had promoted the Burlington up to this point, were induced to back its further extension in 1866, after the close of the war, Mr. Perkins said:

"Iowa railroad builders had quite as much of a struggle in the early days as other pioneers, and the difficult problem connected with railroad development was to find persons who were able and willing to supply the money. Of those who were bold enough to take the risks involved, some have made a profit, but not all, by any means. The general impression is that railroads have been great money-makers, without much, if any risk, and that their rates are too high and their taxes too low. The truth is, men who bought land west of the Des Moines river forty years ago have made more profit than men who put their money into railroads.

"I had my first journey across Iowa in the winter of 1862, under the auspices of Col. E. F. Hooker, going by stage from Eddyville via Des Moines, to Council Bluffs, passing through what seemed to me like a great wilderness. After the war our Boston people were persuaded to undertake an extension of the Burlington & Missouri River railroad to Chariton, fifty-six miles from Ottumwa, and in August, 1866, I made my second trip across the State with James F. Joy of Detroit, then President of the company. The end of the track was a few miles west of Chillicothe, say ten miles beyond Ottumwa, where we left the railroad and took a carriage and pair, with Peter G. Ballingall to drive. After six or seven days, stopping briefly at the county seats, we landed at Plattsmouth.

"The result of this expedition was that Mr. Joy definitely decided against an extention to the Missouri river, and he doubted the wisdom of going even as far as Chariton. He told me he did not believe a road through the counties of Clarke, Union, Adams, Montgomery and Mills could be made to pay in thirty years, and that he should advise his eastern friends not to take the risk of building. He acted on this conviction and a year or so later resigned the presidency, because his view did not prevail.

"Mr. Joy's wide experience as a successful railroad pioneer in Michigan and in Illinois, necessarily gave

great weight to his opinion, but, fortunately, as it turned out, John M. Forbes and John W. Brooks of Boston and James W. Grimes of Iowa did not agree with him, and the road was built in spite of very hard sledding financially, and with serious doubt about the result for several years."

Work was resumed at Ottumwa in 1866, and the B. & M. was completed to the Missouri river January 1, 1870. The Hannibal & St. Joe was built into Kansas City in 1867, and the bridge over the Missouri river at that point, as well as the Mississippi river bridges at Burlington and Quincy, were completed about the same time, so that by 1870, the Burlington had become a real railroad from Chicago to the Missouri river, with branch lines and feeders in Illinois and Iowa and Missouri. Its prospects were so good that in 1872, it consolidated with the B. & M. in Iowa, and in the next few years its branch line policy was greatly developed.

Meantime, important events were happening west of the Missouri River. The discovery of gold in California, and its wonderful soil and climate, were destined to make the great State which it has since become. The coast territory was very considerably occupied by people from the Southern States, and there was much apprehension in the North that California might set up a separate government, or might even join the Southern Confederacy. This led, in 1862, to the organization of the Union Pacific as a Union saver, and the granting of lands and subsidies to induce eastern capital to build a railroad to California. It was very important for this road to have eastern connecting railroads at Council Bluffs. With that in mind, Congress, in 1864, passed an act authorizing the Burlington & Missouri, which was then at Ottumwa, to extend its road into Nebraska and connect up with the Union Pacific at

Kearney, and offering it a valuable land grant. That company could not raise the money, although the land grant in Nebraska amounted to 2,300,000 acres, and the project had to lie dormant for several years. Finally Mr. Forbes, Mr. Perkins, and their Boston associates, decided to undertake it, and in 1869, with many misgivings, they organized the Burlingon & Missouri River Railroad in Nebraska, and Congress passed an Act authorizing the Iowa company to transfer all of its Nebraska rights to this new company. They then secured the money and built the road through to Kearney in 1872.

Then came on the disastrous panic of 1873, largely the result of excessive railroad building upon insufficient capital. Many railroads in the west became bankrupt, but so strongly had the credit of the Burlington been preserved, that it was very little affected.

Progress After 1880

Almost nothing was done for several years in the way of railroad extension, but by 1880, the situation had entirely changed. Specie payments had been resumed in 1879, and the country was entering upon an era of prosperity, and there followed, under the vigorous leadership of Perkins and Forbes and their associates, the most important developments in the history of the C. B. & Q. They took over the B. & M. in Nebraska in 1880, and extended it to Denver in 1882, and built hundreds of miles of connecting lines all over southern Nebraska, reaching out into Wyoming, South Dakota, and the Black Hills, and into Montana to Billings to a connection with the Northern Pacific. At the same time they bought over a thousand miles of important railroad in Missouri, the St. Louis, Keokuk & Northwestern, the Hannibal & St. Joseph, and Kan-

sas City, St. Joseph & Council Bluffs, and built an independent line into St. Louis costing over $7,000,000, thus connecting up their Trans-Missouri system with St. Louis and the South, and in 1883, promoted the Chicago, Burlington & Northern line to St. Paul.

The extension to Billings, involving as it did, the easy possibility of going to the Pacific coast, probably led up to the negotiations which finally resulted in the purchase of the road in 1900, by the present owners. Since then the southern Illinois coal, and the value of connections with the Louisville & Nashville and that portion of the South, led to the acquisition of the Jacksonville line and its extension to Paducah, and the building of the Metropolis bridge, and at the same time, the control of the Colorado & Southern became an important factor; but the Burlington, as a compact, prosperous and efficient railroad system, reaching every important commercial center between Chicago and the Rocky Mountains, except, perhaps, Sioux City and Topeka, may be said to have been an accomplished fact in 1892, under the same group of men that engineer Brooks, in 1845, had persuaded to turn their financial eyes upon Michigan and Chicago and Illinois and the west, then waiting for railroads to enable the best farmers in the world to develop its riches.

Why Was the Burlington Sold?

The question has been asked—why, with such a property, having such a history, such credit and such a future, did those who had led their followers across more than one financial Red Sea into the Promised Land, come to sell the road? Why did they not continue to develop it, extend it to the coast, and keep its rewards for their stockholders? There is the point.

Directors are trustees for stockholders as well as for the public. The silver panic of 1893 was a most disastrous panic. In 1896, under the menace that our currency system might go to a silver basis, C. B. & Q. stock fell to 54 in the market, with general predictions that it would go much lower. The Presidential election of that year turned the financial tide and by 1900 the whole situation was again changed, and opportunity was presented to the stockholders to exchange their stock for securities upon a basis that would enable them to realize $200 per share, and who can say now that it was a mistake for them to accept, when he sees what the stock market has done, and may do, for all the railroads that are neighbors to the C. B. & Q.? Nobody has ever put the case better than Mr. Perkins did in a letter that he published at the time, in which he said:

"The C. B. & Q. company will continue to do business precisely as heretofore, with Mr. Harris as President and the organization unchanged. But it will be assured of, what it does not now possess, a permanent connection by the shortest line with the great Northwest, rich in minerals and lumber, with its markets for agricultural and other products, and with the commerce of the Pacific Ocean by way of Puget Sound and the Columbia River. On the other hand, the northern roads will be assured of a permanent connection by the shortest line with the agriculture and manufactures of the Middle West, and the markets to be found there for the products of the North and the commerce of the Pacific. No argument is necessary to show that this assured permanency is of the greatest importance to all of the interests concerned, the people as well as the railroads. * * * *

"The whole effect of the combination will be beneficial. Look at a map and see how the lines of these corporations fit into and supplement each other. And

when doing so it will interest you to trace, and compare with these railroads of today, the line of march of Lewis and Clark, who took possession of the Louisiana purchase for the government of the United States a hundred years ago."

Writing the Corporate History

My own interest in this story has been stimulated by the circumstance that I have been intrusted with the writing of the corporate history of the C. B. & Q. for the Federal Valuation, which, with the help of several of your number, is now nearing completion. The Burlington is the combination and the product of two hundred and eight separate and distinct railroad companies, each of which was organized by somebody, at some time, somewhere, and under this legal authority some integral part of the road was built. The task of finding the source of each company's authority and then tracing its history through every detail of construction and operation and merger into the present unified system of 9,000 miles in twelve different states, has been an interesting task. In a way, it is a history of the making of the west, and if I can get this history complete and accurate, it ought to be worth something, even if all the other features of the Government Valuation program do not turn out to have a practical and permanent value.

Some Impressions

Looking at the Burlington now, as a great efficient and highly useful business enterprise, through the perspective of the years of small beginnings and of struggle and much to discourage and dishearten those who were taking the risk, one cannot fail to receive certain impressions.

Among them is the impression of the importance

of personality, of the right kind of leadership, of the influence of strong characters in accomplishing big results.

Another fact is not simply the importance, but the absolute necessity of finding a source of financial credit; that is, to be able to secure the money. All of those paper railroad companies would long since have died and been forgotten had life not been put into them by investors who would take the risks, and mostly in small sums through purchases of the stocks and bonds.

Columbus went, hat in hand, from one court in Europe to another, begging for money to build and equip the little caravels in which he sailed, not to discover America and the Western Continent, but to find a new and shorter route to India and the riches of the East. But Columbus was not more diligent in his day than were Forbes and Brooks in 1850 to 1870 in importuning the merchants and fishermen and traders of New Bedford and Salem and Boston to invest their hard won earnings in the securities of the young Burlington company so that the road might be extended and equipped and the Great West, in which they had unbounded faith, might be developed.

That money did not grow on trees. Somebody had to work for it. It was earned in factories, on the ocean in the fishing industry, and on the farms. The Burlington was built out of the savings of the people of Massachusetts and New England. That is precisely what "Capitalism" means applied to the Burlington.

Still another impression that one receives is the vivid contrast between good times and bad times, and their effect, not only upon railroad enterprises, but upon all business. In the panic periods of 1837, 1857, and 1873, three per cent a month was not an uncommon price for the use of money, but in good times I

have seen the C. B. & Q. sell millions of its bonds bearing three and a half per cent interest, at a premium of three per cent, which is much above the present price of government bonds.

But the most distinct impression is the paramount importance of honest management, of having a reputation for fair dealing, and no feature has been more marked than this in the Making of the Burlington.

It goes without saying that its success was part and parcel of the success of the people, its patrons, who followed it into the West, a citizenship of exceptional quality, and that it has been largely due to the character of its employes.

The world has never seen a more progressive, more intelligent or better adapted type of farmers than peacefully penetrated this region, lured by the fertility of the soil and the hope and prospect of owning land on which to build their homes. They farmed with enthusiasm and their products demanded markets, which made towns and cities, so that in two generations an empire was created out of a wilderness.

Railroad employes are the aristocracy of American labor. One definition of aristocracy is, "Rule by the best." To the skill, efficiency and loyalty of its employes, this Company and the public are indebted for the superiority and high reputation of its service. Its trainmen and engineers, its agents and shop men, and its office forces and employes of every grade, in co-operation with those charged with responsibilities of management, have all done their full part.

No state, and no combination of states, nor the Federal Government, would ever on earth have evolved a railroad system through this territory, in this period, approaching it in economy and quality of construction and operation, in fair and generous treatment of employes, or in efficiency of public service.

Speaking of your relations to the company, I expressed at the beginning my conviction that yours is a good trade, that you have a profession that is full of opportunities, and you have only to look about you and see successful engineers in every direction, to confirm my conviction.

Mr. Rea, now President, and Mr. Roberts, for many years President, of the Pennsylvania, entered the service of that company as carriers of the rod and chain and beginners in the engineering department, as likewise did, upon other roads, Mr. Storey, President of the Santa Fe, Mr. Finley, President of the Northwestern, Mr. Felton, President of the Great Western, Mr. Kelley, President of the Grand Trunk, and Mr. Hetzler, President of the Western Indiana. And you do not have to look beyond the Burlington for shining examples of success, which had their inception in the engineer's office, among them Vice-President Howland, General Manager Holdrege, Thos. E. Calvert, much beloved and much regretted, and Mr. Geo. Morison, who built or rebuilt almost every important bridge of the company. These names, and the life histories of the men who bear them, recall the lines of Alexander Pope, written more than two hundred years ago:

"Honor and Shame from no condition rise,
Act well your part, there all the Honor lies."

The pay check and its size are important, but not everything. In serving and preserving the Burlington, we are not only earning a living, but following the lines of an honorable ambition, and in a high sense are serving the public, and in that service never did the doors of opportunity stand wider open to you as engineers than they do at this hour.

REQUESTED
RECEIVED
Nov 15, 1920
KNOWLTON
Nov. 15, 1920.

Mar 15 1922
Mar 15 1922.